1. First, find the equation of the line containing the two points below. Then, write the equation in the form y = mx + b and choose the intervals that contain m and b.

$$(-4,2)$$
 and  $(-9,-2)$ 

A. 
$$m \in [0.02, 1.65]$$
  $b \in [5.8, 6.08]$ 

B. 
$$m \in [-1.11, 0.12]$$
  $b \in [-9.6, -8.37]$ 

C. 
$$m \in [0.02, 1.65]$$
  $b \in [6.76, 7.15]$ 

D. 
$$m \in [0.02, 1.65]$$
  $b \in [5.11, 5.34]$ 

E. 
$$m \in [0.02, 1.65]$$
  $b \in [-5.6, -4.65]$ 

2. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{5x+9}{6} - \frac{-7x-7}{3} = \frac{7x+7}{4}$$

A. 
$$x \in [1.67, 1.93]$$

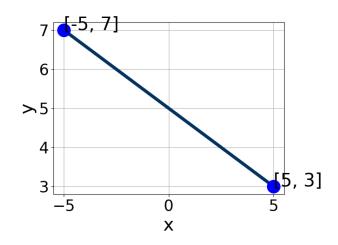
B. 
$$x \in [-1.71, -0.62]$$

C. 
$$x \in [-0.54, -0.26]$$

D. 
$$x \in [-6.82, -5.13]$$

- E. There are no real solutions.
- 3. Write the equation of the line in the graph below in Standard Form Ax + By = C. Then, choose the intervals that contain A, B, and C.

Progress Quiz 6



Version A

- A.  $A \in [-0.6, 1.4], B \in [-0.15, 2.2], \text{ and } C \in [4, 9]$
- B.  $A \in [2, 9], B \in [4.62, 5.45], \text{ and } C \in [23, 27]$
- C.  $A \in [-0.6, 1.4], B \in [-1.03, 0.21], \text{ and } C \in [-5, -4]$
- D.  $A \in [2, 9], B \in [-7.61, -3.85], \text{ and } C \in [-30, -21]$
- E.  $A \in [-2, -1], B \in [-7.61, -3.85], \text{ and } C \in [-30, -21]$
- 4. Solve the equation below. Then, choose the interval that contains the solution.

$$-13(-4x - 5) = -18(-19x - 12)$$

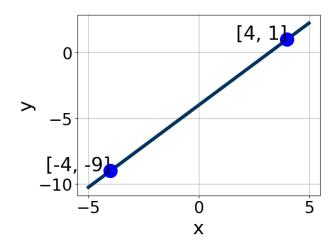
- A.  $x \in [0.85, 1.05]$
- B.  $x \in [-0.63, -0.31]$
- C.  $x \in [-1.19, -0.82]$
- D.  $x \in [-0.8, -0.66]$
- E. There are no real solutions.
- 5. Find the equation of the line described below. Write the linear equation in the form y = mx + b and choose the intervals that contain m and b.

Parallel to 3x - 8y = 15 and passing through the point (-3, -9).

A.  $m \in [-0.75, 0.37]$   $b \in [-10.3, -9.3]$ 

Progress Quiz 6

- B.  $m \in [0.31, 1.13]$   $b \in [6.6, 10]$
- C.  $m \in [0.31, 1.13]$   $b \in [-8.7, -7.1]$
- D.  $m \in [0.31, 1.13]$   $b \in [-6.7, -5.4]$
- E.  $m \in [1.83, 2.85]$   $b \in [-8.7, -7.1]$
- 6. Write the equation of the line in the graph below in Standard Form Ax + By = C. Then, choose the intervals that contain A, B, and C.



- A.  $A \in [2, 9], B \in [2.7, 6.6], \text{ and } C \in [-17, -15]$
- B.  $A \in [-8, -4], B \in [2.7, 6.6], \text{ and } C \in [-17, -15]$
- C.  $A \in [-4.25, 3.75], B \in [-2.8, 0.8], \text{ and } C \in [1, 6]$
- D.  $A \in [-4.25, 3.75], B \in [0.1, 2.1], \text{ and } C \in [-11, -3]$
- E.  $A \in [2, 9]$ ,  $B \in [-4.2, -3.2]$ , and  $C \in [14, 20]$
- 7. Find the equation of the line described below. Write the linear equation in the form y = mx + b and choose the intervals that contain m and b.

Parallel to 4x + 9y = 13 and passing through the point (5, -4).

- A.  $m \in [-0.18, 0.74]$   $b \in [-6.8, -5.7]$
- B.  $m \in [-0.5, 0.02]$   $b \in [-1, 4.2]$
- C.  $m \in [-0.5, 0.02]$   $b \in [-12.1, -8.4]$

Progress Quiz 6

D. 
$$m \in [-3.15, -1.79]$$
  $b \in [-2.1, -0.3]$ 

E. 
$$m \in [-0.5, 0.02]$$
  $b \in [-2.1, -0.3]$ 

8. Solve the equation below. Then, choose the interval that contains the solution.

$$-2(-18x - 9) = -19(-16x - 8)$$

A. 
$$x \in [-0.57, -0.33]$$

B. 
$$x \in [0.51, 0.65]$$

C. 
$$x \in [-0.97, -0.59]$$

D. 
$$x \in [-0.57, -0.33]$$

- E. There are no real solutions.
- 9. First, find the equation of the line containing the two points below. Then, write the equation in the form y = mx + b and choose the intervals that contain m and b.

$$(-5, -9)$$
 and  $(9, -2)$ 

A. 
$$m \in [0.2, 3]$$
  $b \in [-7, -4.5]$ 

B. 
$$m \in [-3.7, 0.4]$$
  $b \in [-1, 3]$ 

C. 
$$m \in [0.2, 3]$$
  $b \in [6.1, 6.7]$ 

D. 
$$m \in [0.2, 3]$$
  $b \in [-12.8, -9.6]$ 

E. 
$$m \in [0.2, 3]$$
  $b \in [-4.6, -3.9]$ 

10. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{-5x-4}{2} - \frac{3x-8}{8} = \frac{-9x+8}{4}$$

A. 
$$x \in [-6.3, -4.5]$$

B. 
$$x \in [0.6, 3.2]$$

- C.  $x \in [-9.5, -7.8]$
- D.  $x \in [-7.1, -6.1]$
- E. There are no real solutions.

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